UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,585	09/19/2003	Thomas E. Creamer	BOC9-2003-0024 (393)	6448

40987 7590 01/28/2008

AKERMAN SENTERFITT
P. O. BOX 3188
WEST PALM BEACH, FL 33402-3188

EXAMINER	
DAILEY, THOMAS J	

ART UNIT	PAPER NUMBER
2152	

MAIL DATE	DELIVERY MODE
01/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/665,585	CREAMER ET AL.	
	Examiner	Art Unit	
	Thomas J. Dailey	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-12,14-20 and 23-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-12,14-20 and 23-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 2-3, 13, and 21-22 were cancelled by the amendment filed on October 25, 2007.

2. Claims 1, 4-12, 14-20, and 23-31 are pending.

Response to Arguments

3. The U.S.C. 101 rejections directed at claims 12-31 are withdrawn. However, the amendments necessitated specification objections which are presented and further elaborated on below.

4. The U.S.C. 112 rejections direct at claims 14-15 (see paragraph 11 of previous action) were not corrected by the filed amendments. These rejections have been repeated below. The other previously presented U.S.C. 112 rejections have been withdrawn in the light of the filed amendment.

5. Applicant's arguments filed October 25, 2007 in regards to the prior art of record have been fully considered but they are not persuasive.

6. The applicant argues with respect to the independent claims that neither Putzolu (US Pat. 6,681,423) nor Boukobza (US Pat. 6,122,664) discloses that the agents would be bound to moving software objects.

7. The examiner disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Boukobza discloses autonomous agents are associated with object types and parameters (column 5, lines 13-18 and column 5, lines 23-30, i.e. software). Putzolu discloses using mobile agents to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23). That is to say, Boukobza discloses agents bound to software objects and Putzolu discloses software objects that are mobile. Specifically, Putzolu renders obvious to one of ordinary skill in the art the mobility of both the monitoring agent and the software objects in Boukobza.

Specification

8. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Claims 12, 14-20, and 23-31 use the term "computer-readable storage." This lacks antecedent basis in the specification. The examiner acknowledges that it was suggested to the applicant for the claims to be of this form, and apologizes, but notes after further consultation if the applicant wishes to amend the claims to recite, machine-readable storage, as before this would be acceptable under 35

U.S.C. 101 and that would not have any antecedent basis issues and that term is specifically recited in the original disclosure.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 14-15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Claims 14, and 15 are system claims that depend from claim 11, a method claim. The claims will be interpreted as system claims that depend from claim 12, as the Examiner believes that was the Applicant's intent.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1, 4-8, 10, 16-20 23-27, 29, and 31, are rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza et al (US Pat. 6,122,664), hereafter "Boukobza," in view of Putzolu et al (US Pat. 6,681,423), hereafter "Putzolu."

14. As to claims 1, 20, and 31, Boukobza discloses a machine readable medium for causing a computer to execute a testing method, a system for testing, and the testing method (Abstract) comprising the steps of:

identifying a plurality of hosts located within a plurality of grids of a grid environment, wherein each of said hosts is a software object (column 4, lines 64-67, "agents are installed...in the nodes to be monitored" and agents are specific to object types, column 5, lines 13-18);

for each of said grids associating a passive ghost agent in said grid with each one of said identified hosts operating in said grid (column 4, lines 64-67 and column 5, lines 13-18, "An autonomous agent SAA is chiefly composed of a generic agent GA related to specific modules SM"), wherein said passive ghost agent is configured to replicate and record at least on action of said host within said grid environment, wherein said replicated actions of said passive agents are prevented from operationally executing in said grid environment (column 6, lines 30-34, "log files of the actions of each node monitored");

generating test input from said recorded data (column 8, lines 44-67, the log is tested for errors via a scan); and,

testing within said grid environment using said test input (column 8, lines 44-67, the log is tested for errors via a scan).

Boukobza, however, does not disclose moving said hosts and in response to said moving of said host, moving said passive ghost agent in a similar manner.

However, Putzolu discloses using mobile agents to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23). That is to say, Boukobza discloses agents bound to software objects and Putzolu discloses software objects that are mobile. Therefore, Putzolu renders obvious to one of ordinary skill in the art the mobility of both the monitoring agent and the software objects in Boukobza, due to the fact that if Boukobza software objects move, so to will Boukobza's agents as they are associated with the objects and log their actions. Such of modification would have been obvious to one of ordinary skill in the art in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and allow for more effective management of the network (Putzolu, column 2, line 64 - column 3, line 8)

15. As to claim 16, Boukobza discloses a computer readable in a grid computing environment, comprising computer instructions for testing applications in said grid environment using a passive ghost agent associated with a host operating

within said grid environment (Abstract), said passive ghost agent comprising a ghost controller for:

managing interactions between said ghost agent and said grid environment (column 5, lines 8-18);

recording data related to actions executed by the host in a ghost log of said ghost agent, wherein said host is a software object (column 6, lines 30-34, "log files of the actions of each node monitored");

identifying said ghost agent to components within a grid environment (column 8, lines 53-63, the action that is called is sent to "the object_id");

wherein said ghost agent is used to test grid-based applications (column 8, lines 44-67, the log is tested for errors via a scan).

Boukobza, however, does not disclose moving said hosts and in response to said moving of said host, moving said passive ghost agent in a similar manner.

However, Putzolu discloses using mobile agents to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23). That is to say, Boukobza discloses agents bound to software objects and Putzolu discloses software objects that are mobile. Therefore, Putzolu renders obvious to one of ordinary skill in the art the mobility of both the monitoring agent and the software objects in Boukobza, due to the fact that if Boukobza software objects move, so to will Boukobza's agents as they are associated with the objects and

log their actions. Such of modification would have been obvious to one of ordinary skill in the art in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and allow for more effective management of the network (Putzolu, column 2, line 64 - column 3, line 8)

16. As to claims 4 and 23, Boukobza and Putzolu discloses the parent claims 1 and 20, and further disclose determining operational metrics for at least one component to be tested; modifying said test input based upon said operational metrics (Boukobza, column 8, lines 44-67, parameters from the log are compared with wanted or expected values of parameters (operational metrics)).

17. As to claims 5 and 24, Boukobza and Putzolu discloses the parent claims 1 and 20, and further disclose said hosts are disposed within a production segment of said grid environment (Boukobza, column 4, lines 64-67) and wherein said testing is performed within a test segment of said grid environment (Boukobza, column 8, lines 44-67).

18. As to claims 6 and 25, Boukobza and Putzolu discloses the parent claims 1 and 20, and further disclose inputting said test input into at least one active ghost agent deployed within said test segment (Boukobza, column 8, lines 50-56); and,

executing actions within said test segment based upon said active ghost agent that received said test input (Boukobza, column 8, lines 53-63).

19. As to claims 7 and 26, Boukobza and Putzolu discloses the parent claims 1 and 20, and further disclose recording data relating to said testing using said deployed ghost agents (Boukobza, column 8, lines 50-67).

20. As to claims 8 and 27, Boukobza and Putzolu discloses the parent claims 1 and 20, and further disclose said hosts are associated with a specific application, wherein said testing is conducted for said application (Boukobzacolumn 8, lines 44-67).

21. As to claims 10 and 29, Boukobza and Putzolu discloses the parent claims 1 and 20, and further disclose gathering usage data for at least one different application using passive ghost agents (Boukobza, column 2, lines 39-46).

22. Claims 12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (US Pat. 5,812,780), hereafter "Chen," in view of Putzolu.

23. As to claim 12, Chen discloses a computer-readable storage medium, comprising computer instructions for testing applications within a grid environment wherein

said grid environment comprises a production segment and a test segment (Abstract), said system comprising:

wherein an application comprises one or more hosts configured to execute actions within a grid of said grid environment disposed in said production segment (column 6, lines 51-54); and,

wherein said testing comprises associating a passive ghost agent within said grid with each of said hosts, wherein said ghost agent is configured to record data related to said actions executed by said associated host in said grid (column 4, lines 3-5), wherein said recorded data is used to simulate user interactions within said test segment (column 3, lines 53-59).

But Chen does not disclose moving said hosts and in response to said moving of said host, moving said passive ghost agent in a similar manner.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

However, Putzolu discloses using mobile agents to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23). That is to say, Boukobza discloses agents bound to software objects and Putzolu discloses software objects that are mobile. Therefore, Putzolu renders obvious

to one of ordinary skill in the art the mobility of both the monitoring agent and the software objects in Chen, due to the fact that if Chen software objects move, so to will Chen's agents as they are associated with the objects and log their actions. Such of modification would have been obvious to one of ordinary skill in the art in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and allow for more effective management of the network (Putzolu, column 2, line 64 - column 3, line 8).

24. As to claim 14, Chen and Putzolu disclose the parent claim 12, and further disclose a different host configured to execute actions within said test segment (Chen, column 6, lines 51-57, there are multiple severs in Chen's system); a different ghost agent configured to record data related to actions executed by said host of said test segment (Chen, column 4, lines 3-5, multiple simulations of clients).

25. As to claim 15, Chen and Putzolu disclose the parent claim 14, and further disclose a ghost agent configured to trigger said different host in said test segment to execute said actions based upon data recorded by said ghost agent in said production segment (Chen, column 4, lines 3-9).

26. Claims 9, 11, 18, 28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza and Putzolu, as applied to claims 8 and 27 above, in further view of Chen.

27. As to claims 9 and 28, Boukobza and Putzolu discloses the parent claims 8 and 27, but do not disclose determining system requirements for said application based at least in part upon output from said testing.

However, Chen discloses determining system requirements for said application based at least in part upon output from said testing (column 3, line 64-column 4, line 9).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza with Chen in order to determine how many clients a given server can adequately support (column 3, lines 64-67).

28. As to claims 11 and 30, Boukobza and Putzolu discloses the parent claims 10 and 29, but do not disclose testing said specific application while simultaneously simulating load conditions resulting from said at least one different application.

However, Chen discloses testing said specific application while simultaneously simulating load conditions resulting from said at least one different application (column 4, lines 5-9).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu with Chen in order to determine how many clients a given server can adequately support (column 3, lines 64-67).

29. As to claim 18, Boukobza and Putzolu disclose the parent claim 16, but do not disclose means for simulating user actions during tests using said ghost agent.

However Chen discloses means for simulating user actions during tests using said ghost agent (column 3, lines 53-59).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu with Chen in order to determine how many clients a given server can adequately support (column 3, lines 64-67).

Conclusion

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

31. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TJD

1/22/8

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER